

REMARKS

Claims 1, 3-12 and 15-20 are pending in this application. By this Amendment, claim 20 is added, and claim 14 is canceled without prejudice to or disclaimer of the subject matter recited therein. No new matter is added. Support for the amendments can be found, *inter alia*, at page 16, lines 26-35 of the application as filed. Reconsideration based on the amendments and following remarks is respectfully requested.

I. Entry of the Amendments is Proper Under Rule 116

Entry of the amendments is proper under Rule 116 because: 1) the Final Rejection fails to address each and every feature of independent claim 1, and it indeed fails to address at least one feature of independent claim 1 that was added by Applicant's last Amendment as a result of the discussion during the April 28, 2009 personal interview; 2) the Final Rejection relies on a portion of Willis that was not previously relied upon, nor discussed during the April 28, 2009 personal interview; 3) the Final Rejection's reliance on the newly cited portion of Willis is improper because the Final Rejection mischaracterizes the cited portion of Willis for reasons discussed below.

Under Rule 116, an Amendment After Final Rejection may be made by, for example, 1) canceling claims or complying with any requirement of form expressly set forth in a previous Office Action; and 2) an Amendment touching the merits of the application may be admitted upon a showing of good and sufficient reasons why the Amendment is necessary and was not earlier presented. The feature of claim 1 that the Final Rejection failed to address is: "at least one microporous membrane having approximately circular pores of approximately constant diameter." Applicant amended the claims to include this feature because the Examiners agreed that the feature was not taught by the applied references, and indicated that further search as to the newly added feature would be required. As such, Applicant expected the rejections to be withdrawn in view of Applicant's Amendment.

Instead, the Final Rejection fails to address this feature, and as mentioned above, maintains its previous rejection by presenting Willis in a new light based on a portion of Willis not previously discussed nor previously cited, thus necessitating Applicant's addition of claim 20.

Specifically, in the Response to Arguments section at page 7 of the Final Rejection, the Final Rejection indicates that Applicant's arguments are not persuasive, and bases this determination on the following premise: "since there is a clear teaching of $1\mu\text{m}$ and $.8\mu\text{m}$, both of which fall in the claimed range, it is deemed that Willis discloses the claimed pore diameter with sufficient specificity to anticipate the subject matter." This conclusion ignores Applicant's above-quoted recitation, introduces a new basis for the rejection and also incorrectly characterizing the reference and the effect of what is disclosed in it.

Thus, entry of the amendments is respectfully requested.

II. The Claims Define Allowable Subject Matter

The Office Action rejects claims 1-6, 8-16 and 18 under 35 U.S.C. §103(b) over Willis (U.S. Patent No. 6,134,317); claim 7 under 35 U.S.C. §103(a) over Willis in view of Campbell (U.S. Patent No. 3,681,209); and claims 17 and 19 under 35 U.S.C. §103(a) over Willis in view of Irie (U.S. Patent No. 5,314,606). The rejections are respectfully traversed.

The Office Action asserts that Willis teaches all of the currently claimed combination of features including a valve wherein "the pore diameter lies in a range from $.2$ to $1\mu\text{m}$," as recited in claim 1. The Office Action previously cited to a portion of Willis at col. 5, lines 44-51 wherein Willis recited a range of 0.1 to $10\mu\text{m}$, and preferably $4-6\mu\text{m}$. In response to Applicant's argument that Willis discloses only a broad range vastly encompassing Applicant's claimed narrow range, the Final Rejection now, for the first time, cites to a new portion of Willis. Specifically, the Final Rejection cites to Example 2 at col. 15, lines 30-47. In Example 2, Willis discusses the use of a NUCLEOPORE 7 membrane that is 25 millimeters in diameter. The paragraph in which Willis describes Example 2 discusses a

diameter of the membrane, but fails to teach a diameter of a pore. Example 2 states "pyrroles polymerizing the pores of a NUCLEOPORE 7 membrane (25 millimeters in diameter);" and "for NUCLEOPORE 7 membranes having a diameter of 0.8im...." The cited portion of Willis is silent as to a diameter of the pores themselves.

The Final Rejection mischaracterizes Willis. The Final Rejection states "Willis discloses a pore diameter in the range from .1 - 10 μ m; col. 5, lines 44-51, with a preferable range of 1 to 8 μ m, and a specific example of 'membranes having a diameter of .8 μ m' at col. 15, lines 43-44." Page 7. This statement is facially inaccurate. The Final Rejection states that Willis discloses a pore diameter, yet quotes a statement from Willis relating only to a diameter of a membrane. The cited portion clearly states "membranes having a diameter of..." Moreover, the Final Rejection misquotes the units of the membrane diameter provided by Willis. As such, Applicant respectfully submits that Willis fails to disclose the claimed ranges of pore diameter.

Further, the Final Rejection asserts that there is a "clear teaching of 1 μ m." Willis' mere disclosure of an endpoint of Applicant's claimed range does not amount to a teaching with sufficient specificity so as to anticipate or render the claimed pore diameter range obvious. Willis' disclosure is only that of a range, not a specific point within that range. *See, e.g.* MPEP §2131.03; *Atofina v. Great Lakes Chemical Corp.*, 441 F.3d 991, 1000 (Fed. Circ. 2006) (holding that "the disclosure of a range of 150 to 350° C does not constitute a specific disclosure of the endpoints of that range, i.e., 150° C and 350° C."). Indeed, the only point alleged to be within Applicant's claimed range to which the Final Rejection cites is characterized as a diameter of a membrane, not a pore within the membrane, as discussed above.

Also, as discussed above, the Final Rejection fails to rebut Applicant's argument regarding the "microporous membrane having approximately circular pores of approximately

constant diameter" recitation of claim 1. Willis fails to disclose this feature, and Applicant explained at page 7 of Applicant's previous Remarks that Applicant's specification states that "it is essential that all of the pores of the microporous membrane be of the same size so as to ensure that the polymerization advances at the same rate, whatever the pore." See page 13, lines 10-15. This feature was the subject of a great portion of Applicant's Remarks and was thoroughly discussed during the April 28, 2009 personal interview, but not at all addressed in the Final Rejection. As discussed above, Applicant argued during the April 28, 2009 interview, and Examiners Pilling and Evans did not disagree, that Willis fails to disclose this feature. The Examiners agreed that the references fail to expressly teach a "microporous membrane having approximately circular pores of approximately constant diameter," and indicated that a further search and consideration would be required. Thus the claims are patentable in view of this feature, also.

Newly added claim 20 recites "the microporous membrane having a thickness lying within a range of from about 25 μ m to about 30 μ m." Applicant respectfully submits that Willis, either alone or in combination with Campbell and Irie, fails to teach and would not have rendered obvious this feature. Specifically, the Office Action asserts that Willis teaches a microporous membrane having a thickness lying within the range of 10 μ m to 1mm, preferably from 10 μ m to 30 μ m as recited in claim 14. Applicant respectfully disagrees. The Office Action cites to col. 5, lines 44-51 of Willis for support. However, the cited passage is silent as to membrane thickness and instead discloses pore diameters. The preceding paragraph, however, does disclose thickness of a membrane. The disclosed thickness ranges from about 1 μ m to about 20 μ m. Willis is silent as to Applicant's claimed range as recited in claim 20. Applicant respectfully submits that claim 20 is patentable over the applied references.

Claim 20 further recites "wherein an elapsed time during which said valve switches from the closed state to the open state lies in a range of about 1 to 100 milliseconds."

Applicant respectfully submits that Willis, either alone or in combination with Campbell and Irie, fails to teach and would not have rendered obvious this feature. Specifically, the applied references are silent as to a pore opening/closing time. Applicant's specification as filed explains at page 16, lines 26-35 that Applicant's claimed pore diameter, *inter alia*, accommodates the recited advantageous pore opening/closing time range. Applicant respectfully submits that claim 20 is patentable over the applied references.

In view of the foregoing, Applicant respectfully submits that Willis fails to anticipate each and every feature of claims 1-6, 8-13, 15, 16, 18 and 20. Withdrawal of the rejection of claims 1-6, 8-13, 15, 16 and 18 is respectfully requested.

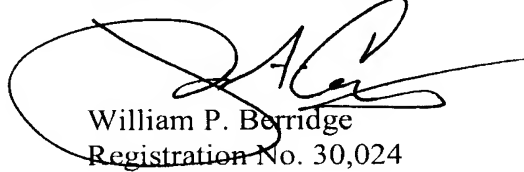
Applicant further submits that Willis, either alone or in combination with Campbell and/or Irie, would not have rendered obvious each and every feature of claims 7, 17 and 19-21. Because claims 7, 17 and 19 depend from claim 1, withdrawal of the rejections of claims 7, 17 and 19 is respectfully requested for the reasons discussed above with regard to claim 1.

III. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Attachment:

Petition for Extension of Time

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